with the record; wherein the program is further configured to order the identifications of the subset of records in the result set using the user feedback parameter associated with each record in the result set; wherein the result set identifier for each search request record further includes a copy of the user feedback parameter for each of the subset of records identified thereby, and wherein the program is configured to selectively update the user feedback parameter by updating each copy of the user feedback parameter in the search request data structure.

Remarks

This paper is submitted in reply to the Office Action dated May 10, 2002, within the three month period for response. In the subject Office Action, claims 1-27 and 48-56 were newly rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,855,015 to Shoham in view of U.S. Patent No. 5,724,567 to Rose et al.[1] Claims 38 and 64-66 were newly rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,324,566 to Himmel et al., and claim 58 was newly rejected under 35 U.S.C. §103(a) as being unpatentable over Himmel et al. in view of Rose et al. The Examiner did indicate, however, that claims 59-63 were directed to allowable subject matter.

Applicants respectfully traverse the Examiner's rejections to the extent they are maintained. In fact, given that the subject Office Action was entered subsequent to reopening of prosecution by the Examiner in response to Applicants' Appeal Brief dated February 12, 2002, Applicants hereby request reinstatement of the Appeal, pursuant to 37 CFR §1.193(b)(2)(ii). A Supplemental Appeal Brief, as required by this rule, is enclosed herewith in triplicate.

It is Applicants' intent to continue the Appeal with regard to claims 1-27 and 48-57. With regard to rejected claims 38, 58 and 64-66, however, Applicants have amended claims 38, 64 and 65 to incorporate the subject matter of objected-to claim 59. In accordance with these

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[1]Claim 57 has not been rejected specifically by the Examiner, although Applicants assume this is simply an oversight. Applicants will consider claim 57 to be rejected on the basis of Shoham and Rose et al., as with claim 56 from which claim 57 depends.

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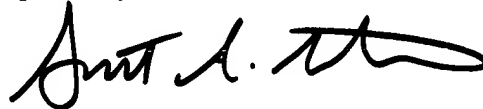K:\ibm\96\Second Amendment and Response.wpd

amendments, claims 58 and 59 have been canceled without prejudice and claim 60 has been amended to depend from claim 38. Moreover, claims 64 and 65 have been further amended to correct a number of minor typographical errors. Attached hereto is a copy of the currently pending claims, including a marked-up version of the changes made to the claims by the current amendment. The attachment is captioned "Version with Markings to Show Changes Made."

Applicants respectfully submit that, in view of these amendments, claims 38 and 60-66 are now in condition for allowance. Withdrawal of the Examiner's rejections of these claims are therefore respectfully requested. Moreover, Applicants reserve the right to refile claims directed to the canceled subject matter in a future copending application, it being noted, for example, that Himmel et al., being 102(e) art commonly owned with the instant application, would not be properly citeable against a continuing application claiming the benefit of the instant application.

With respect to the remaining claims still under rejection, the Examiner will note that the Supplemental Appeal Brief enclosed herewith addresses all outstanding issues on appeal. However, the Examiner and Board may also refer to the original Appeal Brief as appropriate.

If there are any questions regarding the foregoing, or which might otherwise further this case onto allowance, please contact the undersigned at 513/241-2324. Moreover, if any other charges or credits are necessary to complete this communication, please apply them to Deposit Account 23-3000.

Respectfully submitted,

9 AUG 2002
Date

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<u>**Version with Markings to Show Changes Made**</u>

Claims 58 and 59 have been canceled without prejudice.

Claims 38, 60 and 64-65 have been amended as follows. The currently pending claims, including the aforementioned amendments are reproduced below.

1   1. A method of accessing a database, the method comprising:

2   (a) in response to a search request, generating a result set including identifications

3   of a subset of a plurality of records in a database that match the search request;

4   (b) ordering the identifications of the records in the result set using a user

5   feedback parameter associated with each record in the result set; and

6   (c) for each of the plurality of records, selectively updating the user feedback

7   parameter associated therewith in response to detecting multiple accesses thereto by a

8   user.

1   2. The method of claim 1, wherein selectively updating the user feedback parameter

2   includes increasing a weight for the user feedback parameter associated with a first record in

3   response to the number of times a user accesses the first record.

1   3. The method of claim 1, further comprising increasing a weight for the user feedback

2   parameter associated with a first record in response to the first record being the most recently

3   accessed record in the result set.

1   4. The method of claim 1, wherein the user feedback parameter associated with each

2   record includes a plurality of weights, each weight associated with a keyword in the associated

3   record, and wherein ordering the records in the result set using the user feedback parameter

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4 associated with each record in the result set includes ordering the records using any weight

5 associated with a keyword matching the search request.

1   5. The method of claim 4, wherein selectively updating the user feedback parameter

2 includes increasing a first weight for the user feedback parameter associated with a first record in

3 response to receipt of a search request matching a first keyword associated with the first weight.

1   6. The method of claim 1, wherein generating the result set includes accessing a search

2 request data structure that includes a plurality of search request records, each including a search

3 request parameter identifying a unique combination of keywords, and a result set parameter

4 identifying a subset of records in the database that match the unique combination of keywords.

1   7. The method of claim 1, wherein ordering the identifications of the records in the result

2 set using the user feedback parameter associated with each record in the result set includes:

3   (a) partitioning the result set into a plurality of relevance groups, with each

4 relevance group including identifications of records having like relevancies to the search

5 request; and

6   (b) sorting the identifications of records within each relevance group according to

7 the user feedback parameters associated therewith.

1   8. The method of claim 1, wherein each record in the database includes a Uniform

2 Resource Identifier (URL) that identifies a document stored on a computer network, wherein

3 selectively updating the user feedback parameter includes selectively updating the user feedback

4 parameter associated with a first record in the database in response to detecting multiple accesses

5 to the document stored at the URL associated with the first record.

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1   9. The method of claim 8, wherein generating the result set includes generating at least

2   one hypertext document including a plurality of hypertext links, each of which configured to

3   access a document identified by a record in the result set.

1   10. The method of claim 9, wherein generating the hypertext document includes

2   generating a script associated with at least one of the records in the result set, the script

3   configured to generate a notification that the associated record has been accessed by a user, and

4   wherein detecting multiple accesses to the document stored at the URL associated with the first

5   record includes receiving the notification.

1   11. An apparatus, comprising:

2   (a) a memory within which is resident a plurality of records from a database, each

3   record associated with a user feedback parameter;

4   (b) a first program, resident in the memory, the first program configured to, in

5   response to a search request, generate a result set including identifications of a subset of

6   the plurality of records that match the search request, and to order the identifications of

7   the records in the result set using the user feedback parameter associated with each record

8   in the result set; and

9   (c) a second program, resident in the memory, the second program configured to,

10   for each of the plurality of records, selectively update the user feedback parameter

11   associated therewith in response to multiple accesses thereto by a user.

1   12. A program product, comprising:

2   (a) a first program configured to, in response to a search request, generate a result

3   set including identifications of a subset of a plurality of records in a database that match

4   the search request, and to order the identifications of the records in the result set using a

5   user feedback parameter associated with each record in the result set;

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6   (b) a second program configured to, for each of the plurality of records,

7 selectively update the user feedback parameter associated therewith in response to

8 multiple accesses thereto by a user; and

9   (c) a signal bearing medium bearing the first and second programs.

1   13. The program product of claim 12, wherein the signal bearing medium includes at

2 least one of a recordable medium and a transmission type medium.

1   14. A method of accessing a database, the method comprising:

2   (a) in response to a search request, generating a result set including identifications

3 of a subset of a plurality of records in a database that match the search request;

4   (b) ordering the identifications of the records in the result set using a user

5 feedback parameter associated with each record in the result set; and

6   (c) for each of the plurality of records in the database, selectively updating the

7 user feedback parameter associated therewith in response to detecting that the record is

8 the most recently accessed record in the result set.

1   15. The method of claim 14, wherein selectively updating the user feedback parameter

2 includes increasing a weight for the user feedback parameter associated with a first record in

3 response to the first record being the most recently accessed record in the result set.

1   16. The method of claim 14, further comprising increasing a weight for the user feedback

2 parameter associated with a first record in response to the number of times a user accesses the

3 first record.

1   17. The method of claim 14, wherein the user feedback parameter associated with each

2 record includes a plurality of weights, each weight associated with a keyword in the associated

3 record, and wherein ordering the records in the result set using the user feedback parameter

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4   associated with each record in the result set includes ordering the records using any weight

5   associated with a keyword matching the search request.

1   18. The method of claim 17, wherein selectively updating the user feedback parameter

2   includes increasing a first weight for the user feedback parameter associated with a first record in

3   response to receipt of a search request matching a first keyword associated with the first weight.

1   19. The method of claim 14, wherein generating the result set includes accessing a search

2   request data structure that includes a plurality of search request records, each including a search

3   request parameter identifying a unique combination of keywords, and a result set parameter

4   identifying a subset of records in the database that match the unique combination of keywords.

1   20. The method of claim 14, wherein ordering the identifications of the records in the

2   result set using the user feedback parameter associated with each record in the result set includes:

3   (a) partitioning the result set into a plurality of relevance groups, with each

4   relevance group including identifications of records having like relevancies to the search

5   request; and

6   (b) sorting the identifications of records within each relevance group according to

7   the user feedback parameters associated therewith.

1   21. The method of claim 14, wherein each record in the database includes a Uniform

2   Resource Identifier (URL) that identifies a document stored on a computer network, wherein

3   selectively updating the user feedback parameter includes selectively updating the user feedback

4   parameter associated with a first record in the database in response to detecting that the document

5   stored at the URL associated with the first record is the most recently accessed document

6   identified in the result set.

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1 22. The method of claim 21, wherein generating the result set includes generating at least

2 one hypertext document including a plurality of hypertext links, each of which configured to

3 access a document identified by a record in the result set.

1 23. The method of claim 22, wherein generating the hypertext document includes

2 generating a script associated with at least one of the records in the result set, the script

3 configured to generate a notification of when the associated record was accessed by a user, and

4 wherein detecting that the document stored at the URL associated with the first record is the most

5 recently accessed document identified in the result set includes receiving the notification.

1 24. An apparatus, comprising:

2 (a) a memory within which is resident a plurality of records from a database, each

3 record associated with a user feedback parameter;

4 (b) a first program, resident in the memory, the first program configured to, in

5 response to a search request, generate a result set including identifications of a subset of

6 the plurality of records that match the search request, and to order the identifications of

7 the records in the result set using the user feedback parameter associated with each record

8 in the result set; and

9 (c) a second program, resident in the memory, the second program configured to,

10 for each of the plurality of records, selectively update the user feedback parameter

11 associated therewith in response to detecting that the record is the most recently accessed

12 record in the result set.

1 25. A program product, comprising:

2 (a) a first program configured to, in response to a search request, generate a result

3 set including identifications of a subset of a plurality of records in a database that match

4 the search request, and to order the identifications of the records in the result set using a

5 user feedback parameter associated with each record in the result set;

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6   (b) a second program configured to, for each of the plurality of records,

7   selectively update the user feedback parameter associated therewith in response to

8   detecting that the record is the most recently accessed record in the result set; and

9   (c) a signal bearing medium bearing the first and second programs.

1   26. The program product of claim 25, wherein the signal bearing medium includes at

2   least one of a recordable medium and a transmission type medium.

1   27. A method of accessing a database, the method comprising:

2   (a) in response to a search request, generating a result set including identifications

3   of a subset of a plurality of records in a database that match the search request;

4   (b) ordering the identifications of the records in the result set using a user

5   feedback parameter associated with each record in the result set, each user feedback

6   parameter including a plurality of weights, each weight associated with a keyword,

7   wherein ordering the identifications of the records includes using only those weights

8   associated with keywords that match the search request; and

9   (c) for each of the plurality of records in the database, selectively updating at least

10   one weight for the user feedback parameter associated therewith in response to user

11   interaction with the record.

28. - 37. (CANCELED)

1   38. (Once Amended) A method of processing search requests submitted to a search

2   engine, the method comprising:

3   (a) receiving a search request that specifies a plurality of keywords;

4   (b) accessing a search request data structure in response to the search request, the

5   search request data structure including a plurality of search request records, each search

6   request record including a search request identifier identifying a unique combination of

7   keywords, and a result set identifier identifying a subset of a plurality of records in a

8 database that match the unique combination of keywords, wherein accessing the search

9 request data structure includes searching the search request data structure to locate a

10 search request record including a search request identifier that matches the plurality of

11 keywords in the search request; [and]

12 (c) generating a result set identifying the subset of records identified in the result

13 set identifier in the located search request record;

14 (d) for each of the plurality of records in the database, selectively updating a user

15 feedback parameter associated therewith in response to user interaction with the record;

16 and

17 (e) ordering the identifications of the subset of records in the result set using the

18 user feedback parameter associated with each record in the result set;

19 wherein the result set identifier for each search request record further includes a copy of the user

20 feedback parameter for each of the subset of records identified thereby, and wherein selectively

21 updating the user feedback parameter includes updating each copy of the user feedback

22 parameter in the search request data structure.

1 39. - 47. (CANCELED)

1 48. (ADDED) The method of claim 27, wherein selectively updating at least one weight

2 for the user feedback parameter includes, in response to user interaction with a first record,

3 increasing any weight associated with the first record that is further associated with a keyword

4 matching an active search request for the user.

1 49. (ADDED) The method of claim 27, wherein selectively updating at least one weight

2 for the user feedback parameter includes increasing a first weight for the user feedback parameter

3 associated with a first record in response to detecting multiple accesses thereto by a user.

1 50. (ADDED) The method of claim 27, wherein selectively updating at least one weight

2 for the user feedback parameter includes increasing a first weight for the user feedback parameter

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3   associated with a first record in response to the first record being the most recently accessed

4   record in the result set.

1   51. (ADDED) The method of claim 27, wherein generating the result set includes

2   accessing a search request data structure that includes a plurality of search request records, each

3   including a search request parameter identifying a unique combination of keywords, and a result

4   set parameter identifying a subset of records in the database that match the unique combination

5   of keywords.

1   52. (ADDED) The method of claim 27, wherein ordering the identifications of the records

2   in the result set using the user feedback parameter associated with each record in the result set

3   includes:

4   (a) partitioning the result set into a plurality of relevance groups, with each

5   relevance group including identifications of records having like relevancies to the search

6   request; and

7   (b) sorting the identifications of records within each relevance group using the

8   weights from the user feedback parameters associated therewith.

1   53. (ADDED) The method of claim 27, wherein each record in the database includes a

2   Uniform Resource Identifier (URL) that identifies a document stored on a computer network,

3   wherein selectively updating the user feedback parameter includes selectively updating at least

4   one weight for the user feedback parameter associated with a first record in the database in

5   response to user interaction with the first record.

1   54. (ADDED) The method of claim 33, wherein generating the result set includes

2   generating at least one hypertext document including a plurality of hypertext links, each of which

3   configured to access a document identified by a record in the result set.

1   55. (ADDED) An apparatus, comprising:

2   (a) a memory within which is resident a plurality of records from a database, each

3   record associated with a user feedback parameter;

4   (b) a first program, resident in the memory, the first program configured to, in

5   response to a search request, generate a result set including identifications of a subset of

6   the plurality of records that match the search request, and to order the identifications of

7   the records in the result set using the user feedback parameter associated with each record

8   in the result set, wherein each user feedback parameter includes a plurality of weights,

9   wherein each weight is associated with a keyword, and wherein the first program is

10   configured to order the identifications of the records by using only those weights

11   associated with keywords that match the search request; and

12   (c) a second program, resident in the memory, the second program configured to,

13   for each of the plurality of records, selectively update the user feedback parameter

14   associated therewith in response to user interaction with the record.

1   56. (ADDED) A program product, comprising:

2   (a) a first program configured to, in response to a search request, generate a result

3   set including identifications of a subset of a plurality of records in a database that match

4   the search request, and to order the identifications of the records in the result set using a

5   user feedback parameter associated with each record in the result set, wherein each user

6   feedback parameter includes a plurality of weights, wherein each weight is associated

7   with a keyword, and wherein the first program is configured to order the identifications of

8   the records by using only those weights associated with keywords that match the search

9   request;

10   (b) a second program configured to, for each of the plurality of records,

11   selectively update the user feedback parameter associated therewith in response to user

12   interaction with the record; and

13   (c) a signal bearing medium bearing the first and second programs.

1   57. (ADDED) The program product of claim 56, wherein the signal bearing medium
2   includes at least one of a recordable medium and a transmission type medium.

1   58. (Canceled).

1   59. (Canceled).

1   60. (Once Amended) The method of claim 38 [59], wherein the result set identifier for
2   each search request record further includes a list of record identifiers, each of which identifying a
3   record in the associated subset of records, and each of which associated with the copy of the user
4   feedback parameter for the associated record, the method further comprising ordering the list of
5   record identifiers identified by the result set identifier of a first search request record based upon
6   the copies of the user feedback parameters associated with the subset of records.

1   61. (ADDED) The method of claim 60, wherein the search request data structure
2   comprises a table, wherein each search request record comprises an entry in the table, and
3   wherein the result set identifier for each search request record comprises a linked list of record
4   identifiers.

1   62. (ADDED) The method of claim 61, further comprising sorting the table entries
2   responsive to frequency of access thereto.

1   63. (ADDED) The method of claim 62, further comprising:
2   (a) adding a new entry to the table in response to receiving a search request not
3   matching any existing entry in the table; and
4   (b) removing an entry from the table in response to a frequency of access therefor
5   falling below a predetermined threshold.

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1   64. (Once Amended) An apparatus, comprising:

2   (a) a memory within which is resident a search request data structure, the search

3   request data structure including a plurality of search request records, each search request

4   record including a search request identifier identifying a unique combination of

5   keywords, and a result set identifier identifying a subset of a plurality of records in a

6   database that match the unique combination of keywords;

7   (b) [(a)] a program, resident in the memory, the program configured to, in

8   response to a search request that specifies a plurality of keywords, search the search

9   request data structure to locate a search request record including a search request

10   identifier that matches the plurality of keywords in the search request, and to generate a

11   result set identifying the subset of records identified in the result set identifier in the

12   located search request record;

13   wherein the program is further configured to, for each of the plurality of records in the database,

14   selectively update a user feedback parameter associated therewith in response to user interaction

15   with the record; wherein the program is further configured to order the identifications of the

16   subset of records in the result set using the user feedback parameter associated with each record

17   in the result set; wherein the result set identifier for each search request record further includes a

18   copy of the user feedback parameter for each of the subset of records identified thereby, and

19   wherein the program is configured to selectively update the user feedback parameter by updating

20   each copy of the user feedback parameter in the search request data structure.

1   65. (Once Amended) A program product, comprising:

2   [(a) a memory within which is resident a search request data structure;]

3   (a) a program configured to, in response to a search request that specifies a

4   plurality of keywords, search a search request data structure to locate a search request

5   record including a search request identifier that matches the plurality of keywords in the

6   search request, the search request data structure including a plurality of search request

7   records, each search request record including a search request identifier identifying a

8   unique combination of keywords, and a result set identifier identifying a subset of a

9   plurality of records in a database that match the unique combination of keywords, and the

10   program further configured to generate a result set identifying the subset of records

11   identified in the result set identifier in the located search request record; and

12   (b) a signal bearing medium bearing the program;

13   wherein the program is further configured to, for each of the plurality of records in the database,

14   selectively update a user feedback parameter associated therewith in response to user interaction

15   with the record; wherein the program is further configured to order the identifications of the

16   subset of records in the result set using the user feedback parameter associated with each record

17   in the result set; wherein the result set identifier for each search request record further includes a

18   copy of the user feedback parameter for each of the subset of records identified thereby, and

19   wherein the program is configured to selectively update the user feedback parameter by updating

20   each copy of the user feedback parameter in the search request data structure.

1   66. (ADDED) The program product of claim 65, wherein the signal bearing medium

2   includes at least one of a recordable medium and a transmission type medium.

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